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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,686	03/09/2004	Teiji Yamamoto	04021/LH	4859

1933 7590 08/16/2006

FRISHAUF, HOLTZ, GOODMAN & CHICK, PC  
220 Fifth Avenue  
16TH Floor  
NEW YORK, NY 10001-7708

EXAMINER
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MORANO IV, SAMUEL J

ART UNIT	PAPER NUMBER
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3617

DATE MAILED: 08/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/797,686

Applicant(s)

YAMAMOTO ET AL.

Examiner

Frantz F. Jules

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,8-11,16 and 18-24 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,6,12-15 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,8-11,16,18,21 and 23 is/are rejected.
- 7) ☒ Claim(s) 19,20,22 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 5, 16, 18, 21, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Attwell (US 2,535,254) in view of Hefter (US 6,758,145).

Attwell discloses a crawler structure comprising an endless crawler belt wound between a sprocket (22) and an idler (18) of a crawler vehicle; and a crawler belt link grinding system constituted by plate member (29) for grinding treads of links (24) of a crawler belt link which includes ground engaging lugs (26) since during operation of the crawler, plate member 29 constantly grind the inner surface of the track links, wherein the plate member (29) has a width that is larger than an outside width of the links (24) as seen in fig. 2 and a length that is longer than one pitch of the links.

Attwell discloses all of the features as disclosed above but does not disclose a grinding system comprising an abrasive plate. The general concept of providing a grinding system comprising an abrasive plate to a vehicle is well known in the art as illustrated by Hefter which discloses the teaching of a grinding system comprising an abrasive plate to a vehicle. Also, It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Attwell to include the use of a grinding system comprising an abrasive plate (33) to his advantageous crawler belt as taught by Hefter

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in order to improve the surface cleaning of the track while providing a cleaning system that is durable in construction, carefree of maintenance, easy to assemble.

#### Claim 2

Attwell discloses all of the features as disclosed above but does not disclose a grinding system comprising an abrasive plate positioned above the track frame. The general concept of providing a grinding system comprising an abrasive plate which is positioned above the track to a vehicle falls within the realm of common knowledge as obvious mechanical expedient which carry no patentable weight and is well known in the art of cleaning or grinding of a track as illustrated by Hefter which discloses the teaching of a grinding system comprising an abrasive plate to a vehicle. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Attwell to include the use of a grinding system comprising an abrasive plate which is positioned above the track frame to his advantageous crawler belt in order to improve the surface cleaning of the track while which is efficient in operation in all terrain.

3. Claims 8-11, 21, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer (US 3,053,334) in view of Smyth (US 1,660,100) and Hefter (US 6,758,145). Bauer discloses a crawler structure comprising an endless crawler belt wound between two idler (14) of a crawler vehicle, a track roller (17) disposed under the frame, a carrier roller (17) disposed on said track frame; and a crawler belt link cleaning system constituted by plate member (23) for cleaning treads of links of a crawler belt link (11)

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since during operation of the crawler, plate member 23 constantly rubs the respective treads of the track links.

Bauer discloses all of the features as disclosed above but does not disclose a crawler structure comprising a sprocket and a grinding system comprising an abrasive plate.

The general concept of providing a sprocket to a crawler structure is well known in the art as illustrated by Smyth which discloses the teaching of a sprocket (D) in a crawler structure. Also, the general concept of providing a grinding system comprising an abrasive plate to a vehicle is well known in the art as illustrated by Hefter which discloses the teaching of a grinding system comprising an abrasive plate to a vehicle. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Bauer to include the use of a sprocket in his advantageous track assembly as taught by Smyth in order to reduce the risk of slipping in the track thereby increasing traction in the track assembly. In addition, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Bauer to include the use of a grinding system comprising an abrasive plate (33) to his advantageous crawler belt as taught by Hefter in order to improve the surface cleaning of the track while providing a cleaning system that is durable in construction, carefree of maintenance, easy to assemble.

***Allowable Subject Matter***

4. Claims 19, 20, 22 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

5. Applicant's arguments filed 05/22/2006 have been fully considered but they are not persuasive.

**A. Summary of applicant's argument**

In the amendment, applicant traversed the rejection of claims for the following reasons:

1. The references cited in the rejection of claims 2, 19, 20, 22, and 24, Atwell and Hefter, fail to disclose:

- a) the feature of the an abrasive plate which is disposed above the track frame;
- b) an abrasive portion comprising a plurality of alternating ridges and grooves extending along a direction crossing a traveling direction of the links.

2. The references cited in the rejection, Atwell and Hefter, cannot be properly combined to yield applicant's invention as they are non-analogous.

**B. Response to applicant's argument**

1. Applicants argument number one is moot in view of the objection of claims 19, 20, 22 and 24. In response to applicant's argument regarding claim 2, it must be recognized that the use of an abrasive or grinding plate disposed above a track frame so as to engage a track constitutes an obvious mechanical expediency which carry no patentable weight and is well known in the art of cleaning or grinding of a track.

1. In response to applicant's argument that Atwell and Hefter are nonanalogous arts, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the

claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Hefter disclosing the use of an abrasive material for engaging of a track constitutes a prima facie case of obviousness to one of ordinary skill in the art as far as gridding the surface of a track which will inevitably result in reducing uneven wear of the track.

### **Conclusion**

**6. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**7.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz F. Jules whose telephone number is (703) 272-6681. The examiner can normally be reached on Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph S. Morano can be reached on (703) 272-6684. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

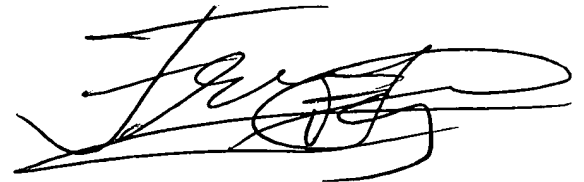
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frantz F. Jules  
Primary Examiner  
Art Unit 3617

FFJ

August 12, 2006

**FRANTZ F. JULES  
PRIMARY EXAMINER**

A handwritten signature in black ink, appearing to read 'Frantz', with a large, stylized flourish at the end.